IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF MARYLAND

NORTHERN DIVISION

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IN THE MATTER OF THE COMPLAINT)
OF ETERNITY SHIPPING, LTD AND)
EUROCARRIERS, S.A. FOR) Case No.:
EXONERATION FROM OR LIMITATION) L01CV0250
OF LIABILITY)

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COPY

Deposition of R. MICHAEL PARNELL

Baltimore, Maryland

Friday, October 7, 2005

9:10 a.m.

Job No.: 1-64603

Pages 1 - 163

Reported By: Sherry L. Brooks

field notes are?

A. Well, I guess the first place to start is I have -- eight pages are marked in the lower right-hand corner with Numbers 1 through 8, and so those are the primary documents that I either had in my hand. Number 1 is a back-at-the-office type sheet that I produced as a result of 2 through 8, so it's just, so it's a summary of those items.

Q. Where did you record the measurements that you took?

A. Well, I have a measurement up at the top left of 3, 27.3 to 28.5. And I have at the top of 6 in the left-hand column, I have 27.3 to 28.5 millimeters. Are you on page 6?

Q. Yes. Is that the range of measurements you took?

A. Yes. It appeared to me the -- what I call the working section, the section of rope that gets through the sheaves the most, runs through the sheaves, typically has some small reduced diameter and lengthening of lay. And typically back at the drum end which a portion of that rope lays on the drum

types of breaks under that or separation, so broken wires just indicates separations.

Q. Now, you mentioned prior damage. Can you tell us what you meant by prior damage?

A. Practically all of the torn wires that I saw -- well, I guess I'll make -- at the top of page 2 in the upper right-hand corner, I didn't find any fatigue breaks or broken wires at the socket, which is from vibratory activity, so it's at page 2 in the top corner.

So fatigue breaks would be from lots of cycles and vibratory fatigue can occur at a socket since it's the dampening point for which the rope is rusted and worries so that to the best of my recollection all the breaks I found were a subject of obstructional contact, tears, external stripping you might say of the rope surface and the wires.

So at the broken wires, they were -- nearly all of them contained corrosion and pitting on those wires at the separation point. Once a wire gets ripped and peeled, it stands up.

It may not have lube on it anymore. It may

Q. Did you see anywhere in the Coast Guard report where the Coast Guard made an observation -- the Coast Guard investigating officer made an observation that there was corrosion and pitting in the break area of the wire rope?

A. I believe I did. Do you want me to find it, see if I can find it?

Q. Yes. It's in your binder.

A. I have a Coast Guard insert in the very back.

Q. I'll direct your attention to the bottom of your written page 12 circled. It talks about, quote, the luffing wire had preexisting damage?

A. Right.

Q. And it talks about -- it goes on to talk about three of the six strands appear to have been pinched or cut. Do you see that?

A. Yes.

Q. Maybe you saw it somewhere else, but I haven't, so I'm really looking to see if there's an area that you relied on that said that there was corrosion and pitting in the break area.

MR. ASPERGER: The document speaks for itself. Is this just a test of his memory or where are you going with this?

MR. CLYNE: That's fair.

BY MR. CLYNE:

Q. I'm -- I guess my question is, other than what you saw, are you relying on anything else to support your conclusions about pitting and corrosion?

A. Other than my own observations -- well, I guess to answer that, I would need to go back and research at least the three other experts on their reports to see if they've made active comments because I don't have an immediate recall of every statement by every expert on the other side here.

I think Pop -- I believe Pop said yesterday that he saw corrosion. It's just not a secret.

Q. Did he say that he saw pitting?

A. I don't recall. I guess we'd have to look at the transcript.

Q. Okay.

A. But I'm not answering yes or no. I just have to go back through the other expert reports and

see if any corrosion was remarked by those gentlemen.

Q. Let's go back to your inspection. Did you do the measurements first?

A. Diameter measurements.

Q. Did you?

A. Yes.

Q. Okay. And what did you do next?

A. Well, I went sample by sample starting from A to F and looked at the physical condition, estimated the approximate length of those rope sections and recorded those to the best of my ability and noted the damage as I came upon damage.

Sometimes I would clean or rub grease away with a rag. Sometimes I would spray on some degreasing agent to get down to as bare wire as possible and then I get to what -- to the failure point.

I spent considerable time looking at the north looking south and south looking north on those two separation points for physical damage, external damage, metal loss, gouging, all the things that -- because the failure as I noted initially had not occurred from fatigue breaks from lots of cycle bending

or at the socket connection, so what else could contribute to this rope failing.

I noticed that the failure was somewhat staggered in the immediate area. A cluster of strands -- wires make up strands. Strands make up the ropes, so a cluster of strands as a group had failed in sequence and in series.

One in particular had given up last and that appeared to have almost all tensile breaks. There were cup and cone and sheer type tensile failures, so whatever had happened to the rope body, it appeared that that strand gave up last just from pure load tension. And then moving down the rope continued to remark about any other damage that I found.

Q. Did you record in your notes exactly where you found the corrosion and the pitting?

A. They were almost all associated with the individual wires that I found either by feel or by -- that were sticking up and I cleaned those off and that's where I found the corrosion and pitting most generally.

And then on some adjacent wires that were

laying by those torn wires that were not torn, cleaned that rope section off 2, 3 or 4 inches either way and looked at those and there was some slight corrosion and pitting against those as well.

Q. So you degreased the wire --

A. You have to to do the inspection.

Q. -- and then saw it? And you saw some wires sticking up; is that right?

A. Yes.

Q. And that's where you found the corrosion?

A. There was sometimes corrosion adjacent to those torn wires on adjacent wires.

Q. Did you review the testimony of any of the Eurocarriers' personnel that were in this shipyard in 1999 when the cranes were refitted to the Leon I?

A. No, I did not.

Q. So you don't know what the details are with respect to the removal of the wire ropes from the vessel the Yannis K and the inspections that were done at that time; is that right?

A. Correct. All I was able to review was Roy Graham's phone testimony, deposition.

Q. I'd like to focus now on your letter dated June 16th, 2005 regarding the Sayenga conclusions and I'm going to work backwards. I want to go to the end of the report, paragraph C. Do you see that?

A. Yes, sir.

Q. Is that your opinion of the probable cause of this accident?

A. Let me read it.

Q. Sure.

A. Yes.

Q. When you say that the Leon I's crane Number 4 had been boomed up to this extreme high angle, what do you mean by that?

A. The extreme high boom angle, that was stated throughout the case.

Q. You'll agree with me that that's a dangerous practice, isn't it?

A. Well, describe the practice to me if you wouldn't mind. Give me a little more information so I can see if I can agree with you or not.

Q. Well, that's what I'm doing. I'm probing extreme high angle and what that means.

A. Well, you can have an approved extreme high angle and there's cautions with that. You can have an unapproved extreme high angle and there would be other problems with that, so if that -- I'm not looking to be argumentative. If I'm going to agree to something, I want to understand what you're trying to say.

Q. Fair enough. Well, you're saying that it makes complete sense that the crane Number 4 had been boomed up to an extreme high angle at some other time in its recent life span, right?

A. Yes.

Q. What do you mean there by recent life span?

A. That wires at the failure point displayed corrosion and pitting and flattening -- extreme flattening on some wires with pitting in the flattened areas. That was all damage and they were in the immediate failure area of those strand wires.

They had been impacted prior to the day of the incident. They had already been scrubbed, gouged, cut and degreased to a point by some combination of events, washing, rain and wiping, etc., scrubbing that can do that and exposed to air.

So we have physical and mechanical damage and we also have environmental damage prior to the day of the failure. In addition to that, there were some wires that looked fresh -- that had fresh shearing and then we had a whole other bundle strand that had pure tensile breaks.

So what I saw that it had been done in its recent life span, the rope that failed -- the rope section that failed here had been significantly damaged prior to this date of the accident to July 29th, 2000.

Q. Okay. By recent life span, are you saying --

A. That's an undefined time.

Q. You don't have any idea what kind of time frame you put on that?

A. Well, I understand that -- from reading Mr. Graham's document, it looked like that -- I thought that these were less than five-year-old ropes at a point in time at the refit, 5 1/2 years, so I don't know -- within that life span, I can't give you the date and time.

I mean, it's -- it could have been on the

second day it was installed and then it was -- you know, from its very first usage, it could have been that.

Q. Installed on the Leon I?

A. No. Installed on that crane because that rope sits and works with that --

Q. Installed on what crane?

A. Number 4.

Q. Okay. So you're -- you're talking about recent life span. You're talking about for the period of time that these wire ropes were installed on the Leon I; isn't that right?

A. No, because the crane came from another vessel. It's in its entire life span.

Q. So recent life span means entire life span?

A. Well, yes. I wouldn't want to make too much out of recent.

Q. These are your words, sir. It's not mine.

A. Yes.

Q. And you can't -- all right. And you can't define that any further; is that right?

A. Correct.

identification and was attached to the deposition.)

BY MR. CLYNE:

Q. Just for the record, we've marked as Parnell Number 5 a sketch that Mr. Parnell has made. Can you tell us what's being depicted there?

A. It's the -- it's just a characterization of the top of the mast where the wire ropes for the main hoist and luffing wire, the boom hoists, come out and work -- go either top of the boom and read through the system.

The dotted line simulates the luffing wire coming off the drum, which is down below in the lower portion of the pedestal apparently from the depositions and it's existing right up through and it's passing very close in this high boom angle position. It passes very close to a sheave guard, which is a curved steel plate over the top.

You'll see the notches right here and those are designed in effect to try to have as much weather protection as keeping the rope in the sheave.

There's -- all cranes are required to have a means for retaining the rope and a slat condition in

the sheave that they're carried in, so it's either done by tie bars, tiepins or a steel plating is covered to keep close to the sheave rim for a certain portion to keep the rope in the track.

When you boom up too high, I sincerely believe that's what cut the rope and that sheave notch -- that guard notch right there is easy to get into. It's only cut to a minimum gap or spacing for normal boom operations would be generally the idea because you want to keep the weather and the water and all the other stuff -- you want to keep it to a minimum and keep the rope in.

So that notch does not go down over the top and back of the mast so that it's well up on the -- it's well up on the sheave rim, so I believe when they boomed up previously they had incurred some contact, caused some scrubbing, caused some damage --

Q. Caused some contact with what?

A. The rope scrubbed the steel plate. That's a curved steel plate right there at the top and it curves right up and it separates and there's two -- the plate continues to run across and the sheaves sit right

between them. When you boom up too high, your rope can hit the back end of that notch.

Q. All right. And that would be true no matter what diameter the rope was, right?

A. Well, if this crane was made for 26 millimeter rope and it had 28 millimeter in it, the rope would not be sitting in the bottom of the tread of the sheave as it should be. It would be riding higher in the sheave.

So whatever angle problem we would have here and potential contact would be amplified because I think we had a mismatch rope.

Q. But -- well, you've never seen the rope certificate, have you, for this particular wire?

A. I believe the Coast Guard called out that the rope required for this crane was 26 millimeter and it gave a rope description, so that's the information I went on that that was supposed to be the diameter and then hence the sheaves that IHI installed here should have been to the 26 millimeter as well.

When you put a fat rope in that, it won't sit and it rides too high or rides high. And any kind

of booming up like this that rope is already high out of the sheave and it would be more inclined to contact that plate guard than a 26 millimeter would by tiny fractions, so I believe that contributed to it.

Q. But you don't know how -- what the actual diameter of the sheave was, do you?

A. The diameter as being 18 inches or 24 inch diameter and so on?

Q. Yes.

A. The diameter of the tread is the OD. The tread contour?

Q. Yes, the tread contour.

A. No, I don't.

Q. And you don't know based on the -- when sheaves like that are used, doesn't that contour sort of flatten by virtue of the rope being -- or actually widen a bit because of the friction with the wire rope running through it?

A. Technically what happens in a soft sheave, meaning it's not flame hardened, a sheave that's somewhat softer than the rope, as the rope gets longer and narrower, you would typically cut a narrower

today?

A. I think -- well, the evidence that I saw in the rope, the damage, even the gouging marks appeared to be -- the wires were gouged in the direction along the steel surface in that the ropes being pulled into it and you pushed back the steel and you slice through.

And that was very consistent with other cut failures that I've seen, so that even the metal movement was very consistent. So the evidence that I saw tells me that we have a problem, which would arise from this question 3 that we would likely have contact there.

Q. But you don't know what the actual boom angles that were utilized while this vessel was in service prior to the casualty, do you?

A. I'm sorry, sir?

Q. You don't know or you don't have any evidence that prior to the casualty -- and I'm not talking about the day of the casualty, but prior to -- that this crane Number 4 on the Leon I was being operated at 78 degrees or higher?

A. There was severe chafing and scrubbing,

metal displacement and loss with embedded corrosion and pitting in the wires that were in the immediate -- within millimeters of the ends of the failures at the separation point.

That wire had been severely chafed and cut, certain wires had been chafed and cut prior to the day of the accident. How long before, I don't know, but there was immediate -- immediate is locational -- damage in that region.

Q. If we look at -- I'm going to flip just a couple pages ahead. There's a whole bunch of questions that start with the title metal loss and corrosion. And there's a -- if you turn to the second page about three-quarters of the way down the page there is a title wire rope diameter. Do you see that?

A. Yes.

Q. Now, I take it that these are questions that you were assisting Mr. Asperger with when he was questioning other experts; is that right?

A. Yes, sir.

Q. Okay. I'm looking specifically at Number 2, which states, quote, once a wire rope relaxes without

criteria based on diameter and number of diameters and the construction of the rope.

Q. Well, let me ask you this: Are you suggesting there that ABS during its inspection in the shipyard in China in November and December of 1999 should have been able to identify the existing damage?

A. I don't know if the damage was existing on that day in China.

Q. You can't say one way or the other; is that right?

A I can't say, correct.

Q. So if I were to tell you that Mr. Hislop rendered an opinion that there was preexisting damage on the wire rope while the vessel was in China, you would disagree with that statement that he could make that --

A. No, I wouldn't disagree with that.

Q. Why wouldn't you disagree with it?

A. That's Mr. Hislop's opinion.

Q. But you can't say one way or the other whether it was preexisting damage; isn't that right?

A. The corrosion that I saw and the damage I

saw was accruable between the day of the accident backwards to the day it left China. It could have happened anywhere in there especially with the corrosion and pitting that was there in a six month window and it could have happened before, that as well, so I don't have a window to say.

Q. But to say it did happen before that would be speculating, wouldn't it?

A. Mr. Hislop's assumption may be based on some things he saw that I didn't see for some reason, and I have to go to that place whereever you were quoting from and sort of try to understand what his statement really is.

MR. CLYNE: I'm going to pass the questioning to Mr. Whitman at this time.

MR. WHITMAN: Let's take 45 minutes.

(Luncheon recess.)

EXAMINATION BY COUNSEL FOR DEFENDANT ETERNITY SHIPPING, LTD AND EUROCARRIERS

BY MR. WHITMAN:

Q. Mr. Parnell, my name is Tony Whitman. We met earlier and I represent the owners and managers of

do you use the term meat hook?

A. No.

Q. What term do you use to describe that condition?

A. Well, the wires are gouged and peeled and the wires are splayed. I've used that word before, the wires are turned, and I have used fishhook, so they're all giving a mental image of the wire lifting up or it's off the surface of the rope and bending some direction.

Q. You were here yesterday for the deposition of Captain Pop; is that right?

A. Yes, sir.

Q. What, if anything, did Captain Pop's testimony add to the bases of any opinions that you have in this case?

A. What did he say that would add to my opinion?

Q. Yes, sir, or would support any opinions that you have in this case.

A. I think the strongest piece of information that I heard was that he felt strongly that there were

-- there was prior damage to the rope before the accident based on what -- he also saw corrosion and other physical damage.

He did not feel like that it had happened at the moment and instant of the incident with the boom falling and all this damage occurred over at one instant time. I got the general gist of it was he felt it had occurred at some time in the past and was there on the day of the accident. Does that answer your question?

Q. Is there anything else that he said that you believe supported your opinion?

A. Yes. Actually, he said that there was relatively no clearance between the side of the sheave and the sidewall in which the sheave rests and would be nearly no -- well, in his fact, the rope could not come off the sheave sideways and go down along the wall and then sheer across the sheave panel, which was -- would be the natural event.

He indicated there was no way based on his inspection -- and he was on that ship numerous days after the accident from what he said, and he looked at

a number of the pictures.

And he said that there was no way that the rope could have come off sideways off the sheave. And in my remarks to Mr. Sayenga and some of the other experts, there was a continuing -- at least in Mr. Sayenga's, I believe, there's a continuing concept that the rope could have possibly failed in his opinion around a small radius failure.

And I didn't think the rope physically represented that kind of failure and Mr. Pop or Captain Pop confirmed that in his opinion the rope couldn't have come off sideways and performed in that way and failed in that way.

Q. Did you have occasion to look at the photographs that Captain Pop had with him yesterday?

A. I don't know if I saw all of them, I mean, to be real frank with you.

Q. Let me see if I can put in my own words your theory of how this happened. We have here Parnell Exhibit 5 which shows, as I understand it, the housing at the top of the actual crane cab itself on the Leon I; is that right?

the wire rope would have contacted the sheave guard or the sheave guard in the configuration as you've described it?

A. Yes, sir.

Q. You've done calculations?

A. Yes, sir, for length.

Q. And for length of the wire rope?

A. Yes, sir.

Q. And where are those calculations?

A. Well, there's some simple calculations here on the side, but at a boom -- at -- because there's no exact boom length on this drawing. There are radiuses identified and angles, but between a -- with a 56-foot boom, I estimated based on the scale here to 60-foot boom length.

That gave me somewhere between about 112 to 120 foot of rope was a target area that we might have this contact. The reeving appears to me that the luffing hoist socket dead ends back at the mast end. How far it's in or how much extra rope is taken up by wherever it's connected it is to be not --

Q. You don't know?

A. I don't know the exact footage, but it's really close when you come from the mast area and you -- with a dead end socket, you go out to the boom point for your run and come back.

At the first entry point right there, you're very close to the footage that Captain Pop came up with as -- 115 foot 9 plus 11 feet would be 126, 127 feet, and that 127 is to the failure point and I just eyeballing it came up within maybe 120 foot.

And I don't know how much rope is taken to make that socket attachment at the base of that mast, so I'm within very few feet of that rope section that failed being right at that top mast point at the moment of failure and at the contact point.

Additionally, the Coast Guard by their evidence suggested there were rope -- shreds of rope, fiber rope core still around that immediate sheave mast area, and I believe Captain Pop in one of his reports indicated the same piece of information.

It drove me back that I started to understand where the failure occurred based on the footage mark and the attachment of the reeving system

and that top mast sheave area looked like the exact failure point to me.

Q. Okay. Other than these length calculations, did you do any calculations of angle to determine whether in fact the wire rope would rub against the sheave guard?

A. I -- on this chart, on this drawing --

MR. ASPERGER: For the record, can we identify the dates?

MR. WHITMAN: We did.

THE WITNESS: There is some angle noted here and it appears to be as a copy of a copy of a copy -- it says ABT 70 something degrees. Whether that's 78 degrees -- and ABT, I don't know if that's about 78 degrees, but I have no protractor scale or arranged diagram which is technically what should reflect the exact boom angle.

This is a very simple schematic and the boom stops are not shown or located such that how much -- and how much compression can the boom stops take, which means you can continue -- you may be able to continue to boom up -- you know, it's --

condition?

A. Pop saw corrosion at the failure point. I saw corrosion and pitting at the failure point and scrubbing -- old scrub, old metal loss and it could not have occurred in a single event on that same day.

Q. Would the scrubbing cause corrosion?

A. The scrubbing removes lubricant and once we had bare steel exposed will likely -- well, we will attract corrosion, oxidation on the surface and then it will start eating into the steel.

It's the removal of lubricant that's the problem, as well as the metal loss which is structurally a problem, but the lubricant going away is -- the corrosion action starts up.

Q. Okay. You were referring to notes which appear to have been made by you on a copy of -- your copy of the Cedar Stav Deposition Exhibit 3, which is Captain Pop's October 15 report. These notes are notes which you took during Captain Pop's deposition yesterday?

A. Yes, sir.

Q. And in preparation for today's deposition?

and then go to those hot spots first of all because that's likely where you're going to have the greatest amount of views and degreasing those specific areas. Take a look at those wires at the surface.

We're also checking for fatigue breaks and for cycle loading, so there's lots of things you have to get down and bear wire to identify.

Q. The area where you believe the failure occurred, would that be one of the hot spots in a crane like the Leon I?

A. In that case, it's not a production crane. It's a utility crane, so it has to be able to reach all over the hold, and you would -- you would inspect sections of that rope at intermittent intervals.

In my opinion, I wouldn't -- there wouldn't be any -- besides the infittings, there's no hot spot in that rope since the boom has to have full range of motion and work in its entire throw, so that would be an overall rope inspection.

Q. Based on your observation of the wire rope and assuming that wire rope was in a condition -- in relatively the same condition just prior to the

casualty, is it your position that the monthly inspections done by the crew of the Leon I should have revealed that that wire rope needed to be replaced?

MR. ASPERGER: That presumes facts not in evidence. Presumes that there were in fact monthly inspections by the Leon crew, so I'll object to it on that basis.

BY MR. CLYNE:

Q. Well, had there been an inspection say one month before the casualty, is it your opinion that that wire rope would have needed to be replaced?

A. Yes, sir.

Q. And what's the basis for that opinion?

A. If what the Coast Guard provided in their report is a reasonable basis for performing a rope inspection on shipboard cranes, they indicate all running wire ropes are to be visually inspected at each annual and retesting survey.

The crane owner or operator is to examine the wire rope, including the inconnections, at frequent intervals between surveys.

Item B, wire rope is not to be used in any

length of 10 diameters, the total number of -- if any -- if in any length of 10 diameters, the total number of visible broken wires exceeds 5 percent of the total number of wires if there is more than one broken wire immediately adjacent to an infitting, if the broken wires are concentrated in one area or one strand, or if the rope shows signs of excessive wear, corrosion, flattening, kinks, separation of the strands or wires, core failures or other defect which renders it unfit for use.

And based on that, I would say that the rope -- I think that comes from ABS's 1991 guide for certification of cranes notice Number 1, Section 7.11, inspection of rope -- of wire rope.

Based on that information or instruction to inspect, which is at frequent intervals between surveys, there were numerous places along the rope body that certainly exceeded the minimum requirements called out here and would have been rejectable.

And the lubricant on this rope was very heavy. When they lubbed it, I don't know, but the last guy that lubbed it should have -- he probably had a --

I would assume he had a dry enough rope to lube.

Even if it would still have some film, that looked like hand-applied lubricant to me, not machine-applied lubricant. Even in the hand application of lubricant he likely would -- or could easily have snagged his glove or lubrication applier on the broken wires that were sticking up out of the rope.

So I think they should have been caught, yes, by a couple of parties, even the inspector, whoever that might have been, and the lubricator, whoever that might have been, if they were different people.

Q. You're talking now about monthly inspections and the inspector designated aboard the vessel, correct?

A. Correct.

Q. And are you aware of the fact that that very process that you described of holding the wire rope with gloves occurred when the wire ropes were removed from the prior vessel, the Yannis K?

A. No, sir.

Q. You're not aware of that?

case. That's what he's asking.

THE WITNESS: Yes.

BY MR. CLYNE:

Q. And is it your testimony that even though you don't know the clearance that a 1 millimeter difference in diameter of the wire rope would make -- would make a difference in your -- strike that. Let me start over again.

Did you ever find any measurements of 29 millimeters in the diameter of the wire rope when you measured it?

A. No, I did not.

MR. CLYNE: No further questions.

EXAMINATION BY COUNSEL FOR DEFENDANT ETERNITY SHIPPING, LTD AND EUROCARRIERS

BY MR. WHITMAN:

Q. Let me follow up on one point. With regard to the size of the wire rope, the size of the sheave, I believe your earlier testimony had been to the effect that an oversized wire rope would ride on only two points in the sheave; is that right?

A. Yes.

Q. And that that would result in scrubbing of the wire rope; is that right?

A. It may -- there may be some over time and number of cycles -- there may be some damage accrued on those two bearing lines on the rope body. A lot has to do with cycles of lifts and load applied.

One time or two times may not -- in light loads may not leave any remarkable impression or flatten any wires off or do anything serious to the sheave, but over time if the sheave is not heat treated, it may wear into the sheave. If the sheave is harder than the rope, we may end up with metal loss on the rope as a result, so all of them are relative to activity going on.

Q. Let's assume for the moment that the sheave here was harder than the rope. What sort of physical evidence then would you expect to see on the wire rope that had been going over that sheave?

A. With very light loads and very little use, almost none. The naked eye probably couldn't detect the peening to the wire surfaces in the two tracks. You might actually pick up more indication by disturb

CERTIFICATE OF SHORTHAND REPORTER-NOTARY PUBLIC

I, Sherry L. Brooks, Notary Public, the officer before whom the foregoing deposition was taken, do hereby certify that the foregoing transcript is a true and correct record of the testimony given; that said testimony was taken by me stenographically and thereafter reduced to typewriting under my direction and that I am neither counsel for, related to, nor employed by any of the parties to this case and have no interest, financial or otherwise, in its outcome.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal this 11th day of October 2005.

My commission expires:

June 1, 2007

Sherry L. Brooks

NOTARY PUBLIC IN AND FOR

THE STATE OF MARYLAND